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ABSTRACT

Past research examining the influence of parenting styles on adolescent externalizing behaviors and substance use has left questions with regard to whether there is a relation between parental social support and adolescent externalizing symptomatology. This study examined the influence of parental control and social support on adolescent externalizing symptoms and substance use using a longitudinal design, and attempted to remedy limitations of past research. Data from a longitudinal study of adolescents (N=454) and their parents were used. Approximately half of the adolescents had at least one parent who met lifetime diagnosis of alcohol abuse or dependence. Parent and adolescent reports of symptomatology and adolescent reports of parenting were submitted to multiple regression and cross-lagged panel correlation analyses. Results showed that parental social support and control were generally negatively related to adolescent externalizing symptoms, alcohol use, and illicit substance use. Additionally, results showed a quadratic relation between parental control and adolescent externalizing symptoms and illicit substance use, but not for adolescent alcohol use. Finally, the results indicated that the assumed direction of causality, from parenting to negative child outcomes, may be incorrect. Future research should examine the mediators through which parental support and control influence adolescent problem behaviors. (Author/ABL)

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**Impact of Parenting Styles on
Adolescent Externalizing and Substance Use:
A Longitudinal Study**

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Abstract

Past research examining the influence of parenting styles on adolescent externalizing behaviors and substance use has left questions with regard to whether there is a relation between parental social support and adolescent externalizing symptomatology, and with regard to the importance of these parenting variables to certain subtypes of externalizing (i.e. attention deficit hyperactivity disorder and conduct disorder). There are also inconsistent findings in this literature regarding (a) the relative importance of parental control and social support, and (b) the form of the relationship between parental control and adolescent externalizing behaviors and substance use. Additionally, questions of the direction of causality have not been addressed using the appropriate longitudinal designs. Finally, past research has suffered from methodological limitations such as sole reliance on adolescent self-reports, small sample sizes, and use of inadequate measures of parental control and social support. The current study examined the influence of parental control and social support on adolescent externalizing symptoms and substance use using a longitudinal design, and attempted to remedy the above mentioned limitations of past research. Using data from a NIDA funded longitudinal study ($n=454$), parent and adolescent reports of symptomatology and adolescent reports of parenting were submitted to multiple regression and cross-lagged panel correlation analyses. Results showed that parental social support and control were generally negatively related to adolescent externalizing symptoms, alcohol use, and illicit substance use. Additionally, results showed a quadratic relation between parental control and adolescent externalizing symptoms and illicit substance use, but not for adolescent alcohol use. Finally, the results indicated that the assumed direction of causality, from parenting to negative child outcomes, may be incorrect. Implications of the findings are discussed in regard to treatment and preventive interventions.

Aims

1. To assess the joint and unique effects of two important parenting dimensions, parental support and parental control, on adolescent's externalizing behaviors, alcohol use, and illicit substance use.
2. To assess for curvilinear effects, in which both parental under-control and over-control would be associated with adolescent problem behaviors.
3. To evaluate the effects of parenting styles on both conduct disorder (CD) and attention deficit hyperactivity disorder (ADHD) symptomatology. Past research has indicated that CD symptoms are more influenced by social environment factors such as parenting, and ADHD symptoms are viewed as resulting primarily from neurological or cognitive factors. Thus, it was expected that parental support and control would be related to CD symptoms, but not ADHD symptoms.
4. To examine the direction of effect between parenting styles and adolescent problem behavior. Although most researchers believe that parenting styles cause child problem behavior (the social mold theory), some investigators have suggested that the primary causal direction is from child problem behavior to parenting styles. That is, child problem behavior is thought to elicit ineffective parenting. It was expected that the primary flow of causal directionality would be from parenting styles to adolescent problem behaviors.

Method

Subjects

454 adolescents (214 females and 240 males) and their parents. Adolescents were 10.5 to 15.5 years old (mean = 12.7) at the first wave of assessment. As the purpose of this research was to examine the relation between parenting and problem behaviors, a sample of Children of Alcoholics (COAs) was utilized because COAs have been shown to be at elevated risk for problem behaviors. Accordingly, approximately half (54%) of the

adolescents had at least one parent who met lifetime diagnosis of alcohol abuse or dependence.

Measures

1. Covariates: adolescent age, adolescent gender, adolescent ethnicity (either Hispanic or Caucasian), parental education, and parental alcoholism diagnosis.
2. Parental social support: an adapted version of the Network of Relationships Inventory (Furman & Buhrmester, 1985) assessed companionship, guidance, intimacy, affection, admiration, and reliable alliance. Adolescent's self-reports of support received from father and mother were averaged.
3. Parental control: 10 items from the non-enforcement and inconsistent discipline subscales of the Child Report of Parental Behavior Inventory (Schaefer, 1965). Adolescent's reports of mother and father behaviors were averaged.
4. General externalizing symptomatology: mothers, fathers, and adolescents reported on adolescent's externalizing behaviors using items from the Child Behavior Checklist (Achenbach & Edelbrock, 1983). Mother and father reports were again averaged.
5. ADHD and CD symptomatology: adolescent's ADHD and CD symptomatology were assessed using selected items from the Child Behavior Checklist that corresponded to DSM III-R and Diagnostic Interview for Childhood and Adolescent (DICA) symptoms of ADHD and CD. Mother, father, and adolescents reported on both criteria. Again, mother and father reports were averaged.
6. Alcohol use: adolescents self-reported their frequency of consuming beer, wine, and hard liquor, and their frequency of heavy drinking over the past 3 months. These reports were then summed to create the variable.
7. Illicit substance use: adolescents self-reported their frequency of use during the past 3 months of marijuana/hashish, amphetamines, quaaludes/barbiturates, tranquilizers, hallucinogens, cocaine/crack, opiates, and inhalants. Again, these reports were summed to create the variable.

Procedures

Data were collected using individual, computer-assisted interviews with adolescents and their parents. Interviewers were blind to the hypotheses of the study. Most interviews took place in the families homes, but some were conducted in research offices. Subjects were interviewed separately to minimize contamination (all but 2% of the families). Families were paid \$50 for each interview that required 1-2 hours to complete.

Results

1. The joint effects of parental support and control were significantly related to all the criteria for both cross-sectional analyses (see Tables 1 and 2). The unique effects for support and control on all criteria were nearly equivalent.
2. Parental control had a significant quadratic relation to parent and adolescent-reports of adolescent externalizing symptoms and illicit substance use, but not for alcohol use (see table 3).
3. Parental control and support were related significantly not only for conduct disorder symptoms, but also for attention deficit hyperactivity disorder symptoms, in both cross-sectional analyses (see Tables 1 and 2).
4. Cross lag panel correlation analysis (Kenney, 1979) was used to examine the direction of effects between parenting styles and adolescent problem behaviors. The results suggest that parenting predicts adolescent problem behavior about as well as problem behavior predicts parenting across a one-year time interval (see Table 4). The one exception was that adolescent-report of externalizing was a significantly better predictor of parenting, than parenting was of adolescent externalizing.

Conclusions

1. Parental support and control were consistently related to all criteria. These effects were replicated across reporters and across time. Regarding the relative contributions of

support and control to adolescent problem behavior, parental support appears to be somewhat more related than control. Future research should examine the mechanisms by which these parenting variables influence adolescent problem behaviors. These findings also suggest that parent training programs might be improved by including a social support enhancement component.

2. Extreme levels of parental control do not show beneficial effects on externalizing symptoms or illicit substance use, as past research has suggested. The diversity of the sample, the use of continuous measures of parental control, and the high statistical power of the analysis most likely facilitated the detection of the quadratic effects. These findings imply that the linear models of parenting effects should be critically examined.

3. A rather unique aspect of this study was examining the relation of parental support and control to ADHD and CD symptomatology. Contrary to what past research has suggested, parenting was related not only to CD symptoms, but also ADHD symptoms. It should be noted that because the present sample consisted of adolescents, the results seem to speak more to maintenance of the disorders rather than their etiology.

Nonetheless, these findings suggest that increasing parental support and control of ADHD adolescents would have beneficial effects.

4. The results of the current study suggest that reciprocal causality is operating between parenting styles and adolescent problem behaviors. There is some indication that the effects on parenting resulting from adolescent problem behavior is stronger than the effects on adolescent problem behavior resulting from parenting. Thus, the findings indicate the social mold theory of socialization appears to be seriously misspecified by omitting reciprocal effects. These findings suggest that interventions that are targeted solely at parent training will have less than optimal effects, and that treatment effectiveness could be improved by also directly targeting adolescent behavior.

5. Future research should examine the mediators through which parental support and control influence adolescent problem behaviors. Future research should also examine

the bi-directional effects between parenting styles and adolescent problem behaviors using structural equations modeling and experimental manipulations of parental support and control.

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Table 1

Joint and Unique effects of Parental Support and Control on Externalizing and Substance Use: Wave 1

Dependent variables	Joint effects	Support Unique	Control Unique
	F (%)	B (%)	B (%)
Adolescent-report:			
Externalizing symptoms	57.6 (18.9)***	0.18 (5.7)***	0.21 (5.1)***
ADHD symptoms	33.3 (12.9)***	0.10 (.07)^	0.45 (7.8)***
CD symptoms	37.8 (13.8)***	5.91 (4.4)***	6.46 (3.4)***
Alcohol use	15.6 (5.7)***	0.12 (2.2)***	0.10 (1.1)*
Illicit substance use	15.9 (6.3)***	0.07 (3.5)***	0.03 (.47)
Parent-report:			
Externalizing symptoms	12.3 (4.9)***	0.07 (3.5)***	0.01 (.05)
ADHD symptoms	10.9 (4.2)***	0.11 (3.3)***	0.01 (.01)
CD symptoms	7.3 (3.1)***	0.05 (2.5)***	0.00 (.00)

Note: for joint tests $df = 2/434$, for unique tests $df = 1/434$.

*** $p < .001$

* $p < .05$

^ $p < .10$

Table 2

Joint and Unique effects of Parental Support and Control on Externalizing and Substance Use: Wave 2

Dependent variables	Joint effects	Support Unique	Control Unique
	F (%)	B (%)	B (%)
Adolescent-report:			
Externalizing symptoms	57.9 (18.6)***	0.17 (2.9)***	0.28 (8.0)***
ADHD symptoms	38.6 (14.3)***	0.06 (.02)	0.48 (10.0)***
CD symptoms	35.4 (12.9)***	3.96 (2.1)***	8.09 (5.5)***
Alcohol use	23.8 (8.5)***	0.16 (2.4)***	0.15 (2.3)*
Illicit substance use	13.9 (5.8)***	0.16 (2.6)***	0.09 (0.8)^
Parent-report:			
Externalizing symptoms	14.6 (5.8)***	0.17 (2.9)***	0.08 (.60)^
ADHD symptoms	5.9 (2.5)**	0.08 (1.8)**	0.01 (.02)
CD symptoms	10.7 (4.5)***	0.05 (2.1)**	0.04 (.60)^

Note: for joint tests $df = 2/429$, for unique tests $df = 1/429$.

*** $p < .001$

* $p < .05$

^ $p < .10$

Table 3

Percent of Variance Explained by the Quadratic Effect of Parental Control for Wave 1

<u>Criteria</u>	<u>% of variance explained</u>	<u>F change</u>
<u>Wave 1:</u>		
<u>Adolescent-report</u>		
Externalizing symptoms	0.8	4.92*
Alcohol use	0.1	0.51
Illicit substance use	0.7	3.76*
<u>Parent-report</u>		
Externalizing symptoms	1.4	7.01**
<u>Wave 2:</u>		
<u>Adolescent-report</u>		
Externalizing symptoms	0.03	0.19
Alcohol use	0.05	0.27
Illicit substance use	0.67	3.27^
<u>Parent-report</u>		
Externalizing symptoms	2.34	12.16***

Note: for all wave 1 tests $df = 1/428$, for all wave 2 tests $df = 1/433$

*** $p < .001$

** $p < .01$

* $p < .05$

^ $p < .10$

Table 4

Results of Cross-Lag Panel Correlation Analyses

<u>Cross-lag Variables</u>	<u>Direction of effect</u>	<u>Z</u>
<u>Adolescent-report</u>		
Support and externalizing symptoms	C1EXT=>C2SSP	-2.84**
Control and externalizing symptoms	C1EXT=>C2PCON	3.49***
Support and alcohol use	no difference	-0.96
Control and alcohol use	no difference	-0.96
Support and illicit substance use	no difference	-1.53
Control and illicit substance use	no difference	-0.19
<u>Parent-report</u>		
Support and externalizing symptoms	no difference	0.66
Control and externalizing symptoms	no difference	-0.43

Note: all tests were two-tailed.

***p < .001

**p < .01